S
363.729
H2per
city
1985

PLEASE RETURN

Montana State Library
3 0864 1006 7412 9

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

TED SCHWINDEN, GOVERNOR

COGSWELL BUILDING

STATE OF MONTANA

HELENA, MONTANA 59620

October 1, 1985

Re: Preliminary Environmental Review
City Transfer & Disposal, Inc.

Board of County Commissioners, Cascade Co. Courthouse, Great Falls
John Mooney, City-Co. Planning Director, P.O. Box 5021, Great Falls
Pete Frazier, City-Co. Health Dept., 1130 17th Avenue S., Great Falls
Benton Lake Natural Wildlife Refuge, P.O. Box 450, Black Eagle, MT
Lawrence Anderson, P.O. Box 2608, Great Falls
Jeff Harwood, Green's Disposal, P.O. Box 2582, Great Falls
Gary Campbel, Floweree, Montana
Tom Ellerhoff, Environmental Sciences Division, DHES, Helena, MT
Environmental Quality Council, Capitol Building, Helena, MT
Darlene Staffeldt, Supervisor, Documents, State Library, Helena, MT

Ladies and Gentlemen:

Pursuant to the Administrative Rules of Montana, 16.2.604, the following Preliminary Environmental Review has been prepared by the Department of Health and Environmental Sciences concerning City Transfer & Disposal, Class II Solid Waste Management System, north of Great Falls.

The purpose of the Preliminary Environmental Review is to inform all interested governmental agencies, public groups or individuals of the proposed action and to determine whether or not the action may have a significant effect on the human environment. This Preliminary Environmental Review will be circulated for a period of fifteen (15) days at which time a decision will be made as to our future action.

If you care to comment on this proposed action, please do so within the allotted time.

Sincerely,

JOHN C. GEACH
Solid and Hazardous Waste Bureau
Environmental Sciences Division

STATE DOCUMENTS COLLECTION

OCT 8 - 1985

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

JCG:vc

AN EQUAL OPPORTUNITY EMPLOYER

publications & graphics

PLEASE RETURN

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Cogswell Building, Helena, Montana 59601
(406) 444-2821

PRELIMINARY ENVIRONMENTAL REVIEW

Division/Bureau Environmental Sciences/Solid & Hazardous Waste Bureau

Project or Application City Transfer and Disposal, Inc. Site two landfill application

Description of Project City Transfer and Disposal, Inc. has submitted a Class II solid waste management system license application to this department. This proposed landfill would replace their currently licensed landfill in the same general area and would accept household refuse and demolition building materials. This landfill would be located in Sections 25 & 36, Township 22N, Range 4E, approximately nine miles north of Great Falls and 1½ miles east of Highway 87(See attached map). This preliminary environmental review is being prepared and circulated as part of the license application review process.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity and distribution				X		X
3. Geology & soil quality, stability and moisture			X			X
4. Vegetation cover, quantity and quality			X			X
5. Aesthetics				X		X
6. Air quality				X		X
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy			X			X
9. Historical and archaeological sites				X		

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores				X		
2. Cultural uniqueness and diversity				X		
3. Local and state tax base & tax revenue				X		
4. Agricultural or industrial production			X			X
5. Human health				X		
6. Quantity and distribution of community and personal income				X		
7. Access to and quality of recreational and wilderness activities				X		
8. Quantity and distribution of employment			X			X
9. Distribution and density of population and housing				X		
10. Demands for government services			X			X
11. Industrial & commercial activity			X			X
12. Demands for energy			X			X
13. Locally adopted environmental plans & goals				X		X
14. Transportation networks & traffic flows				X		X

Other groups or agencies contacted or which may have overlapping jurisdiction Cascade County Planning Board

City-County Health Department

Individuals or groups contributing to this PER.

Recommendation concerning preparation of EIS Not Necessary

PER Prepared by: John C. Geach

Date: October 1, 1985

DHES/ESD-2

PRELIMINARY ENVIRONMENTAL REVIEW
City Transfer-Proposed Landfill
October 1, 1985

POTENTIAL IMPACTS ON PHYSICAL ENVIRONMENT

1. Terrestrial & aquatic life habitats

The location of this site provides limited habitat for small animals and invertebrate species. The excavation of cover soil, trenches and the construction of internal roadways will temporarily displace a small portion of this habitat. However, due to the small biological population of this area and the vast amount of similar habitat immediately adjacent to this proposed landfill site, this impact should be insignificant and short term.

2. Water quality, quantity and distribution

The proposed site is located on glacial till and bedrock of the Colorado Formation. The bedrock material is a portion of the black leaf member of the Colorado Shale. This shale is relatively impervious with a permeability of $4X10^{-7}$ to $4X10^{-8}$ CM/Sec. Due to this slow permeability and the depth of useable groundwater being greater than 1,000 feet, the probability of groundwater contamination from this landfill is extremely minute.

The location of this proposed landfill site lays within a major drainage which flows from the north west to south east. This drainage is a lateral of Blackfeet Gulch which eventually empties into the Missouri River. Due to the proposed landfill's location, surface water control and diversion will be a major component in the site's design, operation and maintenance. The applicant proposes to install a 10 inch PVC drain pipe beneath the landfill for up land diversion. The head of this pipe would begin at a twenty-two foot high earthen dam adjacent to the landfill. This dam and drainage system have been designed to contain a 100 year storm within the landfill property boundaries. Such a precipitation event would drain from behind the dam in approximately 24 hours. A 25 year storm would drain in approximately 8 hours. The drainage pipe would daylight down grade from the landfill on a concrete apron which would control water velocity and erosion.

This drainage system has been designed by a professional engineer to meet the departments licensing criteria. The installation of this system will be required to be certified by a licensed professional engineer.

This proposed drainage system will divert upland drainage safely away from the landfill. Surface water quality therefore is not expected to be impacted by this project.

3. Geology & soils quantity, stability and moisture

The addition of solid waste to the soil will permanently alter the soil's stability and moisture content. This impact should not be adverse if proper refuse compaction, covering and grading techniques are employed at the landfill.

4. Vegetation cover, quantity & quality

Some natural grasses and plant species will be disturbed in the development of fill areas and internal roadways. These losses should be minor and temporary. Completion of these areas will allow vegetation to re-establish through either natural selection or re-seeding.

5. Aesthetics

A sanitary landfill operation could seriously alter the aesthetics of any location. However, through the use of litter fences and proper landfill operational techniques no negative aesthetic impacts are expected to occur at this landfill site.

8. Demands on environmental resources of land, water, air & energy

A landfill places a long term limitation on the future use of its property. Surface settling and methane gas generation from decomposing refuse prohibit the use of the site for conventionally constructed buildings. Completed landfills are ideally suited for uses which do not require structures such as agricultural or recreational uses. Upon completion the applicant proposes to place this property into agricultural production.

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

4. Agricultural or industrial production

This proposed project will temporarily remove portions of this site from its current potential as grazing land. However, the long term effect will be to either return this land to grass land or place it in crop production.

8. Quantity and distribution of employment

The operation of this landfill will require at least one full time care-taker/equipment operator if this site is only used by commercial refuse trucks. If the site is utilized by the general public at least one full time caretaker and one full time equipment operator would be needed. This small work force would have a very small impact on the area's employment.

10. Demands for government services

Governmental services will be required on the local and state levels for the inspectional and administrative services associated with the issuance of a solid waste management system license to this landfill.

11. Industrial and commercial activity

This project will be a commercial enterprise serving at least one private commercial refuse hauler.

12. Demands for energy

Gasoline, diesel and other petroleum products will be consumed in the refuse transportation to the landfill site and in the operation of the equipment needed at the site to properly handle and dispose of the refuse.

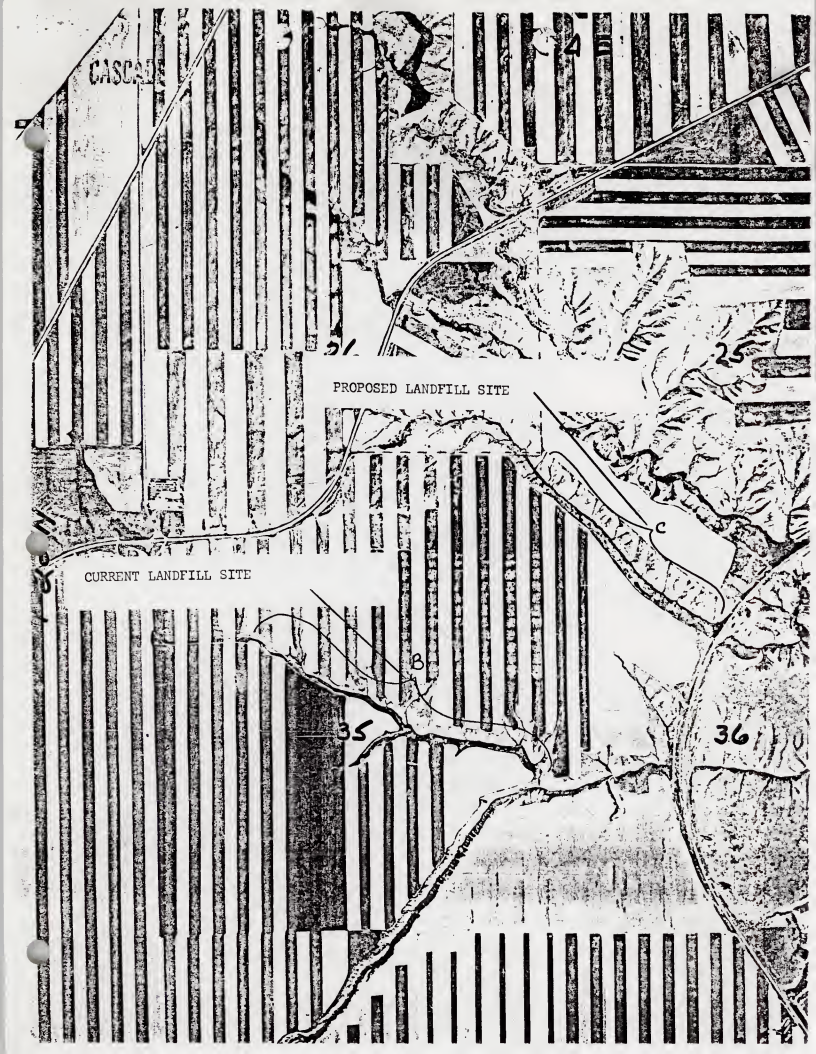
13. Locally adopted environmental plans and goals

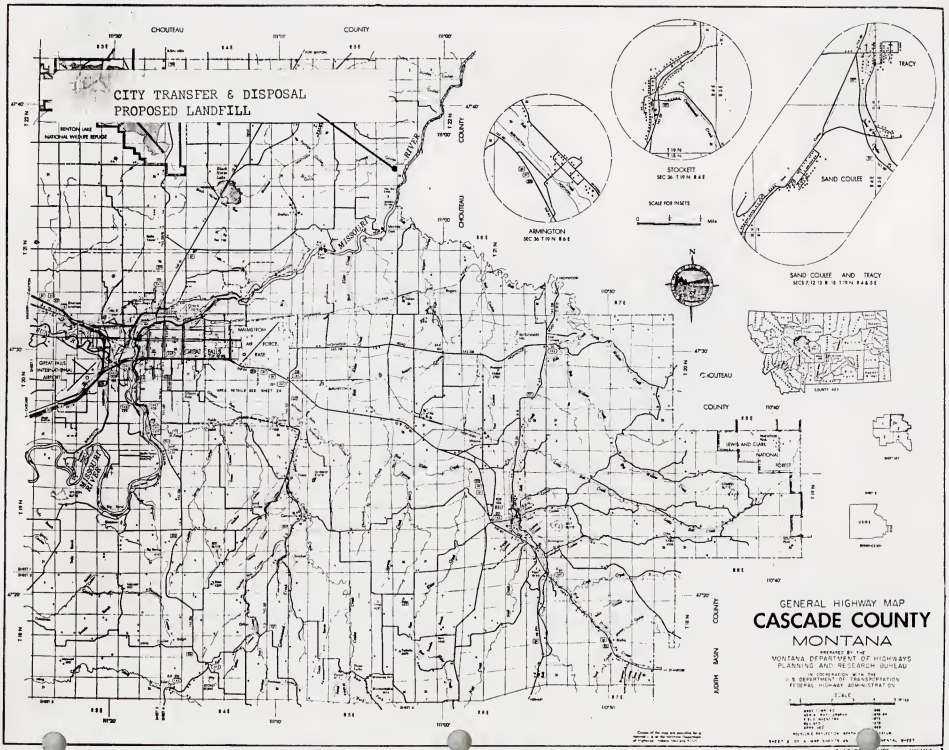
The location of this proposed landfill complies with all existing county planning and zoning regulations as certified by the county commissioners and the Cascade County planning board. This proposed project was locally approved and issued county development permit #80-002.

14. Transportation networks and traffic flows

The applicant currently operates a landfill site approximately ½ mile to the west of this proposed site. Upon completion of the current landfill the applicant proposes to move this landfill operation to this proposed location. This re-location is not expected to result in any additional traffic flows or patterns then are occurring at the present landfill operation.

If the site was to be used by the general public, using private vehicles, increased traffic flows would occur on Highway 87 and along the county roads in the vicinity of the landfill.


CASCADE
PROPOSED LANDFILL SITE
CURRENT LANDFILL SITE
25
36
35
C
B


CITY TRANSFER & DISPOSAL
PROPOSED LANDFILL
CHOUTEAU COUNTY
BENTON LAKE NATIONAL WILDLIFE REFUGE
MISSOURI RIVER
GREAT FALLS INTERNATIONAL AIRPORT
MALMSTROM AIR FORCE BASE
GIBSON RESERVOIR
LEWIS AND CLARK NATIONAL FOREST
ARMINGTON SEC 36 T19N R4E
STOCKETT SEC 36 T19N R4E
SCALE FOR INSETS
SAND COULEE
TRACY
SAND COULEE AND TRACY SEC'S 7,12,13 & 18 T19N R4&5E
CHOUTEAU COUNTY
GENERAL HIGHWAY MAP
CASCADE COUNTY
MONTANA
PREPARED BY THE MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND RESEARCH BUREAU
IN COOPERATION WITH THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
SCALES
GENERAL HIGHWAY MAP CASCADE COUNTY MONTANA